UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2176	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/086,275	RISING ET AL.
	Examiner	Art Unit	
	Maikhanh Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 December 2008_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-13,23-35 and 45-49_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-13,23-35 and 45-49_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 February 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _7/10/02;4/9/04;5/2/07& 2/5/08_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the Election/Restriction filed on 12/02/2008.

        Claims 1-13, 23-35, and 45-49 are elected for examination. Claims 1, 23,

        and 45 are independent claims.

Election/Restrictions

2.   Applicant's election without traverse of Group I (claims 1-13, 23-35, and

        45-49) in the reply filed on 12/02/2008 is acknowledged.

Oath/Declaration

3   The Office acknowledges receipt of a properly signed Oath/Declaration

        submitted 02/28/2002.

Priority

4   Examiner acknowledges the claims for domestic priority under 35 U.S. C.

119 (e) to provisional application 60/272796, which was filed 03/01/2001.

Information Disclosure Statement

5   The Applicants' Information Disclosure Statements (filed 07/10/2002,

04/09/2004, 05/02/2007, and 02/05/2008) have been received, entered into

the record, and considered.

Drawings

6.   The drawings filed 02/28/2002 are accepted by the examiner.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23-35 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Regarding independent claim 23, the Examiner notes that a computer-

readable medium having instructions is directed to statutory subject matter

so long as the language of the claim is not supported in the Specification

with non-statutory embodiments (i.e., signals, transmission mediums and

the like). See In re Nuijten, 500 F.3d 1346, 1357 (Fed. Cir. 2007) (A claim

directed to computer instructions embodied in a signal is not statutory

under 35 U.S.C. § 101).

In the present case, Applicant's Specification discloses that the computer

readable medium (that includes signal bearing media) is intended to

broadly encompass "a carrier wave that encodes a data signal"

(Specification, page 13, lines10-13). Because Applicant's claims broadly

read on signals and other non tangible transmission mediums, the

Examiner concludes that independent Claims 24-35 that depend

therefrom are directed to non-statutory subject matter.

Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C.

102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b),by another filed in the United States before the invention by the applicant for patent or (2)a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a)shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2)of such treaty in the English language; or " (Emphasis added.)

Claims 1, 2, 9, 10, 23, 24, 31, 32, and 45 are rejected under 35

U.S.C. 102(e) as being anticipated by **Heuer** (US 7233953, priority

12/22/2000).

As to claim 1:

Heuer teaches a computerized method of updating a content description

represented as a tree *[See Figs. 4A, B and associated text]* comprising:

- Receiving, by a decoder *(i.e., the decoder also can decode the

  content of the newly appended documents and, where applicable,

  can save it or subject it to further processing)*, a fragment update

  unit for the content description, the fragment update unit comprising

  a navigation path and an update command (i.e., *The bit length*

information for the tree branch codes TBC of the extended tree

structure nodes TSN is coded in the DS_Update_Info( ) specified in

FIG. 4a, as shown in FIG. 4b. The expression

Number_of_changed_nodes signals the number of tree structure

nodes which have been changed … The information about the

changed tree structure nodes can be addressed in the bitstream by

a navigation command, Navigation_Command, and a navigation

path, Navigation_Path) [See Col. 5, line 56 – Col. 6, line 64 and

Fig. 4B];

- selecting a set of nodes in the tree using the navigation path *[See*

  Col. 6, lines 3- 18: navigation path … tree structure nodes can be

  identified by direct addressing of the Complex Types in the

  schema. This direct addressing can be achieved, for example, by

  numbering off the Complex Types defined in the schema]; and

- applying the update command to the set of nodes *[See Col. 5, line*

  56 – Col. 6, line 18: the DS_Update_Info( ) … The expression

  Number_of_changed_nodes signals the number of tree structure

  nodes which have been changed … The change details transmitted

  thereafter then apply for all elements which are of the same type as

  the node addressed. After this, the changed codeword length

  SBC_Length or the changed number of schema branch codes is

inserted into the datastream. The codeword length or number is

again coded in accordance with the same method as used for

coding the Number_of_changed_nodes].

As to claim 2:

Heuer teaches the navigation path is a context-based address that selects

the set of nodes based on their content *[See Col. 6, lines 3- 18: navigation*

path … tree structure nodes can be identified by direct addressing of the

Complex Types in the schema. This direct addressing can be achieved,

for example, by numbering off the Complex Types defined in the schema].

As to claim 9:

Heuer teaches the update command is selected from, among other things,

add commands *[See Col. 5, line 56 – Col. 6,line 13: The bit length*

information for the tree branch codes TBC of the extended tree structure

nodes TSN is coded in the DS_Update_Info( ) specified in FIG. 4a, as

shown in FIG. 4b. The expression Number_of_changed_nodes signals the

number of tree structure nodes which have been changed … the changed

codeword length SBC_Length or the changed number of schema branch

codes is inserted into the datastream].

As to claim 10:

Heuer teaches sending the fragment update unit as part of an access unit

[See Col. 7, lines 40-51: Either the information assigning a bit width to the

individual elements, such as a table, is transmitted before the actual

document, or the decoder can access this information under a specified

address (URI)].

As to claims 23, 24, 31 and 32:

Refer to Claims 1, 2, 9, and 10 above, respectively, for rejections. Claims

23, 24, 31 and 32 are the same as Claims 1, 2, 9, and 10, except Claims

23, 24, 31 and 32 are computer-readable medium Claims and Claims 1, 2,

9, and 10 are method Claims.

As to claim 45:

Refer to Claim 1 above for rejection. Claim 1 is the same as Claim 45,

except Claim 45 is a system Claim and Claim 1 is a method Claim.

Additionally, a processor, a bus, a memory, and a communications

interface are inherent to the system of Heuer.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-8, 25 -30, and 46-49 are rejected under 35 U.S.C. 103(a) as

being unpatentable over **Heuer** in view of **Christensen** (US 7143190 B2,

priority 04/02/2001).

As to claim 3:

The combination of Heuer with Christensen teaches the content-based

address is expressed as an XML XPath location path *[See Christensen;*

Col. 5, line 64 – Col. 6, line 8; Col. 11, lines 24-41: XPath is to address

parts of an XML document … XPath gets its name from its use of a path

notation as in URLs for navigating through the hierarchical structure of an

XML document] when the content description is coded in XML *[See*

Heuer; Claim 1: an XML-based content description, wherein a structure of

any instance of an XML document corresponds to a tree-like data

structure].

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Heuer with Christensen because it would

have enabled the exchange of data and/or events between disparate

systems, bridged the physical gap between those systems, and provided

an execution environment for the business logic required to map the data

and event models of the disparate systems.

As to claim 4:

The combination of Heuer with Christensen teaches the fragment update

unit comprises a fragment payload and applying the update command

comprises updating the set of nodes in the tree with the fragment payload

[See Christensen; Col. 8, lines 22 – 48].

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Heuer with Christensen because it would

have enabled the exchange of data and/or events between disparate

systems, bridged the physical gap between those systems, and provided

an execution environment for the business logic required to map the data

and event models of the disparate systems.

As to claim 5:

The combination of Heuer with Christensen teaches the fragment update

unit further comprises a plurality of fragment payloads and updating the

set of nodes comprises updating each one of the set of nodes with a

different one of the plurality of fragment payloads in a predetermined order

[See Christensen; Col. 8, lines 22 – 48].

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Heuer with Christensen because it would

have enabled the exchange of data and/or events between disparate

systems, bridged the physical gap between those systems, and provided

an execution environment for the business logic required to map the data

and event models of the disparate systems.

As to claim 6:

Heuer teaches the predetermined order is determined by an ordering of all

nodes in the tree *[See Col. 1, line 39 – Col. 2, line 11: the structure of an*

XML document can be interpreted as a data tree, where each element of

the description corresponds to a node in this tree. The structure of the

nodes is defined by the definition in the schema on which the document is

based. In particular, the type and number of child-elements are defined by

it. An example of a prototype for such a node is shown below. These tree-

structure nodes consist of the name of the element or complex type, a

field with TBC words (Tree Branch Code), which are used for referencing

the child-elements, and the tree branches which represent the references

to the appropriate child-elements].

As to claim 7:

Heuer teaches the ordering of all nodes in the tree is selected from,

among other things, pre-order *[See Col. 1, line 39 – Col. 2, line 11: the*

structure of an XML document can be interpreted as a data tree, where

each element of the description corresponds to a node in this tree. The

structure of the nodes is defined by the definition in the schema on which

the document is based. In particular, the type and number of child-

elements are defined by it. An example of a prototype for such a node is

shown below. These tree-structure nodes consist of the name of the

element or complex type, a field with TBC words (Tree Branch Code),

which are used for referencing the child-elements, and the tree branches

which represent the references to the appropriate child-elements].

As to claim 8:

Heuer teaches the fragment payload is selected from, among other things,

a fragment *[See Col. 3, lines 61 -67: the first part of the path, which*

contains the #SchemaBranch fragments, by itself specifies the type of the

element referenced].

As to claims 25-30:

Refer to Claims 3-8 above, respectively, for rejections.

As to claims 46, 47, 48, and 49:

Refer to claims 4, 5, 8, and 9 above, respectively, for rejections.

Claims 11-13 and 33-35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Heuer** in view of Shippy et al. (US 7269744, filed

09/29/2000).

As to claim 11:

The combination of **Heuer** with Shippy teaches selecting the update

command; formatting a fragment payload if required by the update

command; calculating the navigation path; and creating the fragment

update unit from the navigation path, the update command, and the

fragment payload if required *[See Col. 8, line 43- Col. 9, line 23; Col. 11,*

line 1- 20; and Col. 14, line 31– Col. 15, line 40].

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Heuer with Shippy because it would have

specified methods for improving the functionality of the binary

representations of XML-based content descriptions.

As to claim 12:

Heuer teaches formatting a fragment payload comprises including an

attribute identification tag when an attribute is to be updated *[See Col. 6,*

line 30 – 64: By using start and end markers for the elements, so-called

Tags, new elements can be skipped and known ones decoded … If new

elements/attributes are addressed in a TSN, then the transmission

includes, in addition, at the start, the number of bits for the complete sub-

tree or successor tree for this element/attribute, including the N bit content

data which has been inserted].

As to claim 13:

The combination of Heuer with Shippy teaches the fragment payload is

not required when a fragment is to be deleted *[See Claims 7-9: replacing*

the at least one tag bits in the payload with the remove segment of the

payload].

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Heuer with Shippy because it would have

specified methods for improving the functionality of the binary

representations of XML-based content descriptions.

As to claims 33-35:

Refer to Claims 11-13 above, respectively, for rejections.

Conclusion

10.   The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

Contact information

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status

information for published applications may be obtained from either Private

PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from

a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.

/Maikhanh Nguyen/
Examiner, Art Unit 2176

/DOUG HUTTON/
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